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10/091,805	03/06/2002	Marion A. Keyes IV	06005/38044	8371

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EXAMINER
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BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/091,805

Applicant(s)

KEYES ET AL.

Examiner

Crystal J. Barnes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.  
4a) Of the above claim(s) 14-31 and 35-52 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-13 and 32-34 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6 April 2005.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

PD

### DETAILED ACTION

1. The following is a Final Office Action in response to the Amendment received on 6 April 2005. Claims 1, 3, 7-9, 11-13, 32 and 33 have been amended. Claims 14-31 and 35-52 have been withdrawn from further consideration. Claims 1-13 and 32-34 remain pending in this application.

#### *Information Disclosure Statement*

2. The examiner has considered the information disclosure statements (IDS) submitted on 6 April 2005.

#### *Response to Arguments*

3. Applicant's arguments, see Remarks page 10 paragraph 4, filed 6 April 2005, with respect to the rejection of claims 1-9, 11, 13 and 32 under 35 USC 102(e) as anticipated by USPN 6,741,174 to Rhoades et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection are made in view of USPN 6,352,504 B1 to Ise et al. and USPN 6,741,174 B2 to Rhoades et al.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,352,504 B1 to Ise et al.

As per claim 1, the Ise et al. reference discloses an appendable device, comprising: a housing (see column 5 lines 65-66, "housing 17") having a fastener (see column 5 lines 60-61, "carrying device 80") configured to enable the appendable device (see column 5 lines 40-43, "patient monitoring device 3") to be mounted to a surface (see column 9 lines 5-16, "fastening rails, circular tubes"); a memory (see column 5 lines 65-66, "memory 24, 25") disposed within the housing ("housing 17"); an input/output interface (see column 6 lines 4-15, "connections 18, output 19") disposed within the housing ("housing 17"), wherein the input/output

interface ("connections 18, output 19") is adapted to communicate with at least one of a sensor ("sensor 2") or a control output operatively coupled to the appendable device ("patient monitoring device 3"); and a processor (see column 5 lines 65-66, "microprocessor 23") disposed within the housing ("housing 17") and communicatively coupled to the memory ("memory 24, 25"), wherein the processor ("microprocessor 23") is programmed to communicate with the input/output interface ("connections 18, output 19") and to communicate information (see column 5 line 67, "sensor signals") related to the at least one of the sensor ("sensor 2") or the control output, as the information becomes available, to another device (see column 5 lines 25-31, "medical workplace 4") via a communication network ("network 13").

As per claim 2, the Ise et al. reference discloses the processor ("microprocessor 23") is further programmed to enable the appendable device ("patient monitoring device 3") to perform at least a part of a closed-loop process control algorithm (see column 6 lines 4-9, "further processing").

As per claim 3, the Ise et al. reference discloses the processor ("microprocessor 23") is further programmed to diagnose a condition (see column 6 lines 2-3, "if the transport display module 7 or the expansion module 9 is

connected") associated with at least one of the appendable device ("patient monitoring device 3") or a process (see column 6 line 2, "contact connections 48") associated with the appendable device ("patient monitoring device 3").

As per claim 4, the Ise et al. reference discloses the processor ("microprocessor 23") is further programmed to detect an alarm condition (see column 1 lines 23-25, "critical changes") and to send alarm information ("critical changes") to the other device ("medical workplace 4") via the communication network ("network 13") in response to detecting the alarm condition ("critical changes").

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,352,504 B1 to Ise et al. in view of logical reasoning.

As per claim 5, the Ise et al. reference does not expressly disclose the other device is a wireless handheld device.

However, it would have been logically to one of ordinary skill in the art to modify the medical workplace to include a desktop workstation, laptop computer, personal computer, palm top computer, handheld personal computer, pen-based computer, personal digital assistant, etc. that further includes wireless network interface resources that are configured to provide two-way radio or infrared signal communications.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the medical workplace taught by the Ise et al. reference to include a desktop workstation, laptop computer, personal computer, palm top computer, handheld personal computer, pen-based computer, personal digital assistant, etc. that further includes wireless network interface resources that are configured to provide two-way radio or infrared signal communications.

One of ordinary skill in the art would have been motivated to modify the medical workplace to include a desktop workstation, laptop computer, personal computer, palm top computer, handheld personal computer, pen-based computer, personal digital assistant, etc. that further includes wireless network interface

resources that are configured to provide two-way radio or infrared signal communications to facilitate communication suitable for applications where hardwire installation was not practical.

8. Claims 1-9, 11-13, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,741,174 B2 to Rhoades et al. in view of USPN 6,352,504 B1 to Ise et al.

As per claim 1, the Rhoades et al. reference discloses an appendable device, comprising: a housing (see column 4 lines 57-63, "housing 65") having a fastener configured to enable the appendable device ("sensor agent 20") to be mounted to a surface (see column 3 lines 40-50, "compartment"); a memory (see column 4 lines 57-61, "memory module 82") disposed within the housing ("housing 65"); an input/output interface ("connector 90") disposed within the housing ("housing 65"), wherein the input/output interface ("connector 90") is adapted to communicate with at least one of a sensor (see column 3 lines 26-39, "sensors 15") or a control output (see column 4 lines 57-62, "camera 60") operatively coupled to the appendable device (see column 3 lines 40-41, "sensor agent 20"); and a processor (see column 4 lines 57-61, "general computing device or processing unit 70")



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disposed within the housing ("housing 65") and communicatively coupled to the memory ("memory module 82"), wherein the processor ("general computing device or processing unit 70") is programmed to communicate with the input/output interface ("connector 90") and to communicate information (see column 6 lines 63-67, "sensor data") related to the at least one of the sensor ("sensors 15") or the control output, as the information ("sensor data") becomes available, to another device ("user interface 35, portable device 40") via a communication network (see column 3 lines 52-53, "local area network or first network 30" and column 5 lines 25-30, "wireless communication").

The Rhoades et al. reference does not expressly disclose a housing having a fastener configured to enable the appendable device to be mounted to a surface.

The Ise et al. reference discloses

(see column 5 lines 60-61, "A carrying device 80 is located on the terminal.")

(see column 5 lines 65-66, "In the housing 17, the terminal 8 has a microprocessor 23, a permanent memory 24 and a volatile working memory 25.")

(see column 9 lines 4-9, "... the carrying device ... convenient transportation of the terminal 8 ... securely hold the terminal 8 by fastening rails or circular tubes intended for this purpose.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the housing of the sensor agent taught by the Rhoades et al. reference to include the carrying features of the housing taught by the Ise et al. reference.

One of ordinary skill in the art would have been motivated to modify the housing of the sensor agent to include the carrying features to allow the sensor agent to be attached, removed and attached again providing a semi-permanent attachment.

As per claim 2, the Rhoades et al. reference discloses the processor (see column 4 lines 14-19, "general computing device or processing unit 70") is further programmed to enable the appendable device ("sensor agent 20") to perform at least a part of a closed-loop process control algorithm ("evaluate the data received").

As per claim 3, the Rhoades et al. reference discloses the processor ("general computing device or processing unit 70") is further programmed to diagnose a condition (see column 4 41-48, "sensor 15 diagnostics") associated with at least one of the appendable device or a process ("sensor 15 diagnostics") associated with the appendable device ("sensor agent 20").

As per claim 4, the Rhoades et al. reference discloses the processor ("general computing device or processing unit 70") is further programmed to detect an alarm condition (see column 4 lines 14-19, "alarm criteria") and to send alarm information (see column 4 lines 24-27, "alarm message") to the other device (see column 4 lines 28-32, "user interface 35") via the communication network (see column 4 lines 24-31, "first network 30") in response to detecting the alarm condition ("out of tolerance").

As per claim 5, the Rhoades et al. reference discloses the other device (see column 7 lines 19-25, "portable device 40") is a wireless handheld device ("personal digital assistance, cellular phone, laptop computer, or any other portable device having wireless communication capability").

As per claim 6, the Rhoades et al. reference discloses the processor ("general computing device or processing unit 70") is further programmed to enable the appendable device (see column 7 lines 1-6, "sensor agent 20") to function as a part of a communication path ("sub-network or second network 45") for another appendable device ("sensor agents 20").

As per claim 7, the Rhoades et al. reference discloses the at least one of the sensor or the control output ("camera 60") operatively coupled to the appendable device ("sensor agent 20") is disposed within the housing ("housing 65").

As per claim 8, the Rhoades et al. reference discloses the communication network (see column 4 lines 6-10, "first network 30") uses at least one of a wireless ("wireless network") or a hardwired ("hardwired system") communication technique.

As per claim 9, the Rhoades et al. reference discloses the at least one of the wireless ("wireless network") or the hardwired ("hardwired system") communication technique includes the use of an Internet (see column 5 lines 29-35, "wireless communication protocols").

As per claim 11, the Rhoades et al. reference discloses further including a power source (see column 4 lines 57-61, "power support system 85") disposed within the housing ("housing 65"), wherein the power source ("power support system 85") uses at least one of a capacitor, a battery ("battery 75"), a light or a magnetic field to provide power to the appendable device ("sensor agent 20").

As per claim 12, the Ise et al. reference discloses the fastener (see column 5 lines 60-61, "carrying device 80) includes at least one of an adhesive, a screw, a clamp (see column 9 lines 17-24, "recesses 86, 86', 85"), a tie-wrap or a magnet.

As per claim 13, the Rhoades et al. reference discloses the housing is adapted to be mounted within at least one of a rugged environment (see column 3 lines 49-51, "aircraft, spacecraft, factory, subway, train") or a hazardous environment ("power generating station").

As per claim 32, the Rhoades et al. reference discloses an appendable device, comprising: a housing (see column 4 lines 57-63, "housing 65") having a fastener to facilitate surface (see column 3 lines 40-50, "compartment") mounting of the appendable device ("sensor agent 20"); a power source (see column 4 lines 57-61, "power support system 85") disposed within the housing ("housing 65"); a transceiver (see column 5 lines 25-35, "antennae 80") disposed within the housing ("housing 65"); an antenna ("antennae 80") coupled to the transceiver ("antennae 80") and adjacent to the housing ("housing 65"); a memory (see column 4 lines 57-61, "memory module 82") disposed within the housing ("housing 65"); an input/output interface ("connector 90") disposed within the housing ("housing 65"); a sensor (see column 3 lines 26-39, "sensors 15") coupled to the input/output

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interface (see column 5 lines 17-21, "connector 90"); and a processor (see column 4 lines 57-61, "general computing device or processing unit 70") communicatively coupled to the memory ("memory module 82"), the transceiver ("antennae 80") and the input/output interface ("connector 90"), wherein the processor ("general computing device or processing unit 70") is adapted to execute software (see column 6 lines 40-42, "computer software program,") stored in the memory ("memory module 82") to sense a parameter (see column 6 lines 63-64, "data") using the sensor ("sensor 15") and to use the transceiver ("antennae 80") and the antenna ("antennae 80") to transmit information (see column 6 lines 65-67, "sensor data") associated with the sensed parameter ("sensor data") to another device ("user interface 35, portable device 40") via a wireless communication network (see column 5 lines 25-30, "wireless communication") as the information ("sensor data") becomes available.

The Rhoades et al. reference does not expressly disclose a housing having a fastener configured to facilitate surface mounting of the appendable device.

The Ise et al. reference discloses

(see column 5 lines 60-61, "A carrying device 80 is located on the terminal.")

(see column 5 lines 65-66, "In the housing 17, the terminal 8 has a microprocessor 23, a permanent memory 24 and a volatile working memory 25.")

(see column 9 lines 4-9, "... the carrying device ... convenient transportation of the terminal 8 ... securely hold the terminal 8 by fastening rails or circular tubes intended for this purpose.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the housing of the sensor agent taught by the Rhoades et al. reference to include the carrying features of the housing taught by the Ise et al. reference.

One of ordinary skill in the art would have been motivated to modify the housing of the sensor agent to include the carrying features to allow the sensor agent to be attached, removed and attached again providing a semi-permanent attachment.

As per claim 33, the Ise et al. reference discloses the fastener (see column 5 lines 60-61, "carrying device 80) includes at least one of an adhesive, a screw, a clamp (see column 9 lines 17-24, "recesses 86, 86', 85"), a tie-wrap or a magnet.

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9. Claims 10 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,741,174 B2 to Rhoades et al. in view of USPN 6,352,504 B1 to Ise et al. as applied to claims 1-9, 11-13, 32 and 34 above, and further in view of USPN 5,741,966 to Handfield et al.

As per claim 10, the Rhoades et al. reference discloses further including a power source (see column 4 lines 57-61, "power support system 85") disposed within the housing ("housing 65") and adapted to generate power in response to vibration of the surface.

Neither the Rhoades et al. reference nor the Ise et al. reference expressly discloses further including a power source adapted to generate power in response to vibration of the surface.

The Handfield et al. reference discloses  
(see column 11 lines 33-36, "An alternate source of power for the detector/transmitter units 10 ... the piezo-electric element could vibrate generating power to the detector/transmitter.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the sensor agent taught by the Rhoades et al.



reference to include the piezo-electric element taught by the Handfield et al. reference.

One of ordinary skill in the art would have been motivated to modify the sensor agent to include the piezo-electric element to provide an alternate source of power for the sensor agent.

As per claim 34, the rejection of claim 10 is incorporated and further claim 34 contains limitations recited in claim 10; therefore claim 34 is rejected under the same rationale as claim 10.

### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to remote monitoring/control in general:

USPN 6,735,450 B1 to Remmert

USPN 6,605,046 B1 to Del Mar

USPN 5,170,002 to Suzuki et al.

USPN 4,763,284 to Carlin

US Pub. No. 2004/0152957 A1 to Stivoric et al.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is

571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571.272.3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CJB  
17 May 2005



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